

Claims:

1. A method of approximating a motion vector for an image block comprising deriving a first set of vectors from motion vectors of neighbouring blocks in the same frame and the corresponding block and its neighbouring blocks in one or more preceding and/or subsequent frames, deriving a set of candidate vectors from one or more of motion vectors of neighbouring blocks in the same frame and the corresponding block and its neighbouring blocks in one or more preceding and/or subsequent frames, analysing said first set of vectors, and selecting one of the candidate vectors on the basis of the analysis.
2. A method as claimed in claim 1 comprising comparing candidate vectors with a vector or vectors selected or derived from the first set of vectors.
3. A method as claimed in claim 1 or claim 2 wherein the first set of vectors and the set of candidate vectors are the same.
4. A method as claimed in any preceding claim comprising deriving an estimated motion vector from the first set of vectors, comparing the candidate vectors with the estimated motion vector and selecting one of the candidate vectors on the basis of similarity to said estimated vector.

5. A method as claimed in claim 4 wherein the similarity to the estimated vector is defined in terms of distance and/or size and/or direction.

6. A method as claimed in claim 4 or claim 5 wherein the vector that is
5 closest or second closest to the estimated vector is selected.

7. A method as claimed in any one of claims 4 to 6 wherein the estimated motion vector is the mean of two or more or all of the elements of said first set.
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8. A method as claimed in claim 7 wherein the mean is a weighted mean.

9. A method as claimed in claim 8 wherein motion vectors of neighbouring blocks are weighted according to their position in relation to
15 said image block and/or their similarity to the motion vector of the block corresponding to said image block in the preceding or subsequent frame.

10. A method as claimed in any preceding claim wherein the selection takes into account motion boundaries.
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11. A method as claimed in any preceding claim wherein said analysis comprises comparing the motion vectors of neighbouring image blocks in the same frame with the corresponding motion vectors in the preceding or

subsequent frame, and determining the approximation of motion vector according to the results of the comparison.

12. A method as claimed in claim 11 comprising approximating the motion vector using the motion vector of the corresponding block in the preceding or subsequent frame when said comparison indicates a high correlation between the neighbouring motion vectors in the preceding or subsequent frame.

13. A method as claimed in claim 11 or claim 12 comprising approximating the motion vector using motion vectors for neighbouring blocks in the same frame when said comparison indicates a low correlation between frames.

14. A method as claimed in any one of claims 11 to 13 comprising approximating the motion vector using motion vectors from neighbouring blocks in the same frame and motion vectors in the preceding or subsequent frame.

15. A computer program for executing a method as claimed in any preceding claim.

16. A data storage medium storing a computer program as claimed in claim 15.

17. Apparatus adapted to execute a method as claimed in any one of
5 claims 1 to 15.

18. Apparatus as claimed in claim 17 comprising a data decoding means, error detecting means, a motion vector estimator and error concealing means.

10 19. A receiver for a communication system or a system for retrieving stored data comprising an apparatus as claimed in claim 17 or claim 18.

20. A receiver as claimed in claim 19 which is a mobile videophone.